

PATENT COOPERATION TREATY

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INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY
(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference 663542	FOR FURTHER ACTION		See Form PCT/IPEA/416
International application No. PCT/JP2003/008080	International filing date (day/month/year) 26 June 2003 (26.06.2003)	Priority date (day/month/year) 28 June 2002 (28.06.2002)	
International Patent Classification (IPC) or national classification and IPC C12M 1/00, C12N 11/02, 5/06, A61L 27/00, D01F 8/16			
Applicant CHEMICAL BIOLOGY INSTITUTE			

1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.

2. This REPORT consists of a total of 4 sheets, including this cover sheet.

3. This report is also accompanied by ANNEXES, comprising:

a. (*sent to the applicant and to the International Bureau*) a total of _____ sheets, as follows:

sheets of the description, claims and/or drawings which have been amended and are the basis of this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).

sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.

b. (*sent to the International Bureau only*) a total of (indicate type and number of electronic carrier(s)) _____, containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).

4. This report contains indications relating to the following items:

Box No. I Basis of the report
 Box No. II Priority
 Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
 Box No. IV Lack of unity of invention
 Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
 Box No. VI Certain documents cited
 Box No. VII Certain defects in the international application
 Box No. VIII Certain observations on the international application

Date of submission of the demand 09 January 2004 (09.01.2004)	Date of completion of this report 04 February 2004 (04.02.2004)
Name and mailing address of the IPEA/JP	Authorized officer
Facsimile No.	Telephone No. BEST AVAILABLE COPY

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/JP2003/008080

Box No. I Basis of the report

1. With regard to the language, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.

This report is based on translations from the original language into the following language _____, which is language of a translation furnished for the purpose of:

- international search (under Rules 12.3 and 23.1(b))
- publication of the international application (under Rule 12.4)
- international preliminary examination (under Rules 55.2 and/or 55.3)

2. With regard to the elements of the international application, this report is based on (*replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report*):

The international application as originally filed/furnished

the description:

pages _____, as originally filed/furnished

pages* _____ received by this Authority on _____

pages* _____ received by this Authority on _____

the claims:

pages _____, as originally filed/furnished

pages* _____, as amended (together with any statement) under Article 19

pages* _____ received by this Authority on _____

pages* _____ received by this Authority on _____

the drawings:

pages _____, as originally filed/furnished

pages* _____ received by this Authority on _____

pages* _____ received by this Authority on _____

a sequence listing and/or any related table(s) – see Supplemental Box Relating to Sequence Listing.

3. The amendments have resulted in the cancellation of:

- the description, pages _____
- the claims, Nos. _____
- the drawings, sheets/figs _____
- the sequence listing (*specify*): _____
- any table(s) related to sequence listing (*specify*): _____

4. This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).

- the description, pages _____
- the claims, Nos. _____
- the drawings, sheets/figs _____
- the sequence listing (*specify*): _____
- any table(s) related to sequence listing (*specify*): _____

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* If item 4 applies, some or all of those sheets may be marked "superseded."

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V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**1. Statement**

Novelty (N)	Claims	1-15	YES
	Claims		NO
Inventive step (IS)	Claims	1-15	YES
	Claims		NO
Industrial applicability (IA)	Claims	1-15	YES
	Claims		NO

2. Citations and explanations

- Document 1: JP 3-15475 A (Sekisui Chemical Co., Ltd.),
23 January 1991
- Document 2: JP 6-277038 A (Iatron Laboratories, Inc.),
04 October 1994
- Document 3: JP 2002-128958 A (Shin'ichiro NISHIMURA), 09
May 2002
- Document 4: EP 544259 A1 (Lignyte Co., Ltd.), 02 June
1993
- Document 5: JP 9-173362 A (Menicon Co., Ltd.), 08 July
1997
- Document 6: JP 2002-146086 A (National Institute of
Advanced Industrial Science and Technology),
22 May 2002
- Document 7: EP 1201749 A1 (Merck Patent GmbH), 02 May
2002
- Document 8: WO 01/64848 A1 (Takagi Industrial Co.,
Ltd.), 07 September 2001
- Document 9: WO 95/01810 A1 (Smith & Nephew PLC), 19
January 1995

The inventions that are set forth in claims 1-15 involve an inventive step in relation to documents 1-9 cited in the international search report. Documents 1-9 do not disclose a "chitosan/acidic-biopolymer hybrid fiber".

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wherein the interior of the fiber comprises chitosan or a salt thereof and the surface of the fiber is coated with a complex of chitosan and a bioabsorbable acidic biopolymer, characterized in that the fiber is capable of maintaining its form even after two weeks at room temperature in a DMEM medium to which 10% of FBS (fetal bovine serum) has been added," and even a person skilled in the art could not easily have conceived of such a feature in the light of documents 1-9.